

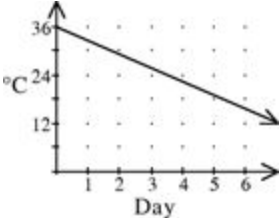
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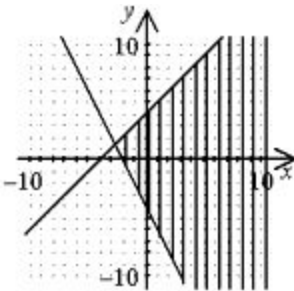
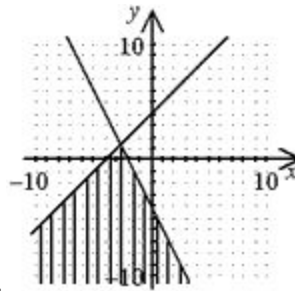
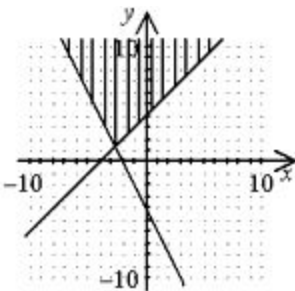
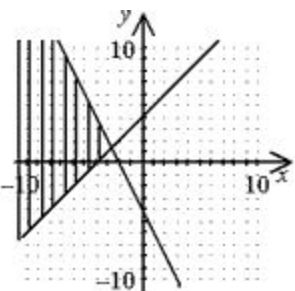
Multiple Choice Mid-Quarter Review

Teacher: _____

Algebra Pd: _____

Day Month Year**Multiple Choice:** Write the CAPITAL LETTER of the best answer in the space provided.*Show your work in the extra spaces provided.*

1. _____	<p>Find the slope and y-intercept of $-3y = 4(6x - 3)$.</p> <p>A. $m = 4, b = -8$ B. $m = -8, b = 4$</p> <p>C. $m = 24, b = -12$ D. $m = -12, b = 24$</p>
2. _____	<p>Tom has a collection of 50 CDs and Nita has a collection of 38 CDs. Tom is adding 2 CDs per month to his collection while Nita is adding 4 CDs per month to her collection. In how many months will they have the same number of CDs?</p> <p>A. 6 months B. 8 months C. 12 months D. 2 months</p>
3. _____	<p>A scientific experiment required that temperatures be lowered at a steady and gradual rate. The beginning temperature was 36°C. The graph shows the decline in temperature. Which equation can you use to find the temperature on the sixth day?</p>  <p>A. $y = 3x + 36$ B. $y = -3x + 36$ C. $y = -\frac{1}{3}x + 12$ D. none of the previous</p>
4. _____	<p>A line passes through $(5, -5)$ and $(3, -2)$. Identify the point-slope and slope-intercept form of an equation of the line.</p> <p>A. point-slope: $y - 5 = -\frac{2}{3}(x + 5)$; slope-intercept: $y = -\frac{2}{3}x + \frac{5}{3}$</p> <p>B. point-slope: $y + 5 = -\frac{3}{2}(x - 5)$; slope-intercept: $y = -\frac{3}{2}x + \frac{5}{2}$</p> <p>C. point-slope: $y + 5 = -\frac{2}{3}(x - 5)$; slope-intercept: $y = -\frac{2}{3}x - \frac{5}{3}$</p> <p>D. point-slope: $y - 5 = -\frac{3}{2}(x + 5)$; slope-intercept: $y = -\frac{3}{2}x - \frac{5}{2}$</p>

5. _____	<p>Find the x- and y-intercepts of $3x - 2y = 18$.</p> <p>A. x-intercept: 6; y-intercept: -9 B. x-intercept: -3; y-intercept: 2</p> <p>C. x-intercept: -6; y-intercept: 9 D. x-intercept: 3; y-intercept: -2</p>
6. _____	<p>Find the slope of a line perpendicular to the graph of $5x + y = 7$.</p> <p>A. -5 B. $\frac{1}{5}$ C. $-\frac{1}{5}$ D. 5</p>
7. _____	<p>Solve the system using substitution.</p> <p>$3m + 4n = -10$ $m = -1 + n$</p> <p>A. (-2, -1) B. (-1, 2) C. $(-1, -\frac{7}{4})$ D. (2, 1)</p>
8. _____	<p>Which ordered pair is a solution of the system?</p> <p>$-2x - 4y = 2$ $6x - 6y = 48$</p> <p>A. (4, -1) B. (5, -3) C. (1, -5) D. (7, -4)</p>
9. _____	<p>Which graph shows the solution of the system?</p> <p>$y \leq x + 4$ $2x + y \leq -4$</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>A.</p> </div> <div style="text-align: center;">  <p>B.</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>C.</p> </div> <div style="text-align: center;">  <p>D.</p> </div> </div>

10. _____	Which point is a solution of $y \geq 4x - 5$? A. (1, 1) B. (2, 1) C. (3, 0) D. (3, 4)
11. _____	A motorboat can go 8 miles downstream on a river in 20 minutes. It takes 30 minutes for this boat to go back upstream the same 8 miles. Find the speed of the current. A. 20 mi/h B. 16 mi/h C. 24 mi/h D. 4 mi/h
12. _____	Which list has the numbers in order from least to greatest? A. 9.4×10^2 , 4.9×10^2 , 9.4×10^3 B. 9.4×10^3 , 4.9×10^2 , 9.4×10^2 C. 4.9×10^2 , 9.4×10^2 , 9.4×10^3 D. 4.9×10^2 , 9.4×10^3 , 9.4×10^2
13. _____	Simplify $0.7(2.8 \times 10^6)$. Write the answer using scientific notation. A. 19.6×10^6 B. 1.96×10^6 C. 19.6×10^5 D. 1.96×10^5
14. _____	A company's projected worth (in millions of dollars) is modeled by the equation $y = 231(1.04)^x$. The variable x represents the number of years since 2007. What is the projected annual percent of growth, and what should the company be worth in 2017? A. 14%; \$355.61 million B. 4%; \$341.94 million C. 4%; \$328.79 million D. 14%; \$240.24 million
15. _____	Factor $x^2 + 2x - 48$. A. $(x + 8)(x + 6)$ B. $(x + 8)(x - 6)$ C. $(x - 8)(x + 6)$ D. $(x - 8)(x - 6)$
16. _____	Match the expression $7x^2 - 5x + 9$ with its name. A. cubic trinomial B. constant monomial C. quadratic trinomial D. not a polynomial
17. _____	Simplify $2n(n^2 + 3n + 4)$. A. $2n^3 + 6n^2 + 8n$ B. $2n^3 + 3n + 4$ C. $2n^2 + 6n + 8$ D. $n^2 + 5n + 4$

18. _____	<p>The Smiths want to cover their backyard with new grass. Their backyard is rectangular, with a length of $3x - 5$ feet and a width of $4x - 10$ feet. However, their patio has dimensions of $x + 8$ by $x - 2$ feet. What is the area of the region of the yard that they want to cover with new grass?</p> <p>A. $6x^2 - 55x + 104 \text{ ft}^2$ B. $x^2 + 6x - 16 \text{ ft}^2$ C. $11x^2 - 56x + 66 \text{ ft}^2$ D. $12x^2 - 50x + 50 \text{ ft}^2$</p>
19. _____	<p>Factor $80x^2 - 245$.</p> <p>A. $(20x - 7)(4x + 35)$ B. $5(16x - 49)(16x + 49)$ C. $5(4x - 7)(4x + 7)$ D. $(4x - 35)(20x + 7)$</p>
20. _____	<p>Find $(5x - 4)^2$.</p> <p>A. $25x^2 + 16$ B. $25x^2 - 40x + 16$ C. $25x^2 - 20x + 16$ D. $25x^2 + 2x + 16$</p>
21. _____	<p>Solve $\frac{1}{6}x^2 + 6 = 0$.</p> <p>A. $-16, 16$ B. $-6, 6$ C. $-1, 1$ D. no solution</p>
22. _____	<p>Solve $x^2 + 2x - 3 = 0$ by factoring.</p> <p>A. $-3, -1$ B. $-3, 1$ C. $-1, 3$ D. $3, 1$</p>